



## DC-UPS

### NCPA0606G01

### 1 Short description

The DC-UPS of the series **C-TEC** includes ultra-capacitors as energy storage inside the housing. This capacitor is charged with the system voltage ( $U_e$ ) during normal operation. The connected loads are supplied as well from the system voltage. In case of an interruption of the system voltage the energy of the ultra-capacitors is released in a regulated way. With a dc/dc converter, the load is supplied by the capacitor until it is discharged. The back-up time depends on the state of charge of the capacitor and on the discharge current.

**The DC-UPS has the following characteristics:**

- Maintenance-free because of long-life ultra-capacitors
- Microcontroller based charging and discharging of the ultra-capacitors
- Parameterizable via USB interface
- Control of operation and status of charge with LED's  
Compatible with the **TECControl-Software**

### 2 Technical Data

|   |   |   |  |
|---|---|---|--|
| Nominal input voltage   | 12V / 24V DC  | Fusing input                                    | 15A (FK2) (device internal)  |
| Input voltage range   | 12,2V - 27V DC  | fusing DC- output circuit                       | 15A (FK2) (device internal)  |
| Minimum charging voltage<br>x-001 (decoupled unit):<br>x-002 (not decoupled):   | (see chapter "5 Operation")<br>system voltage + 0,7V<br>system voltage + 0,2V | fusing capacitor circuit                        | 25A (FK2) (device internal)  |
| Nominal input current   | 10,0 A  | Type of connection input 'U <sub>E</sub> '      | Spring-clamb technique<br>max. 2,5mm <sup>2</sup><br>(AWG 26-12)<br>torque N/A |
| max. inrush current   | 35A / 2ms   | Type of connection output 'U <sub>A</sub> '     | Spring-clamb technique<br>max. 1mm <sup>2</sup><br>(AWG 28-14)<br>torque N/A   |
| Output voltage in back-up operation<br>system voltage 12V<br>System voltage 24V | 11,7V DC ±4%<br>23,2V DC±2%   | Type of connection USB                          | USB-B socket   |
| Nominal output current  | 10A DC  | Protective system                               | IP 20 a. EN 60529  |
| Monitoring of limiting current  | 10,3A DC ±0,1A  | weight  | 2,1kg  |
| Switch off if limiting current is exceeded                                      | after 1,5 Sek.  | Storage temperature / environmental temperature | -40...60°C   |
| Current limitation  | 1,05...1,2 x I <sub>ANom</sub>  |   |  |

# Technical Datasheet

## C-TEC 2410-10



**J. Schneider**  
Elektrotechnik

|   |      |            |                                       |
|---|------|------------|---------------------------------------|
| Efficiency<br>$U_A=23,2V$ DC, $I_A= I_{Anom}$ | >90% | Humidity   | < 95% condensation<br>not permissible |
| max. power loss<br>'worst-case'               | 20W  | Dimensions | 163 x 114 x 150mm<br>(H x W x D)      |

### 3 Norms and regulations

|                       |   |
|-----------------------|---|
| Terminal voltage      | SELV / PELV nach EN 60950 / EN 50178  |
| Ermitted interference | EN 61000-3-2<br>EN 61000-3-3 class A<br>EN 55011 class B<br>EN 62040-2  |
| Noise immunity        | EN 62040-2<br>EN 61000-6-2<br>EN61000-4-2 (Static discharge ESD)<br>8kV/6kV<br>EN61000-4-3 (Elektromagnetic fields)<br>10V/m 27 - 1000MHz // 3V/m 1400 - 2700MHz<br>EN61000-4-4 (fast transients / Burst)<br>DC IN, DC OUT 2kV (others 1kV)<br>EN61000-4-5 (Surge)<br>DC IN 0.5kV<br>EN61000-4-6 (conducted immunity)<br>10V 150kHz – 80MHz<br>EN61000-4-11 (voltage interruption)<br>back-up with ultracapacitor |
| Total unit            | EN 50178 / EN 60950<br>UL 508<br>C22.2 Nr.107-01  |